

We Claim:

1. A device for synchronizing processes which run on a plurality of units including a central unit linked with other units via a field bus, comprising a device provided in the central unit for producing a system clock, the field bus having a vacant line for distributing said system clock to the other units, and respective multiplication devices located at the other units for multiplying said system clock.

2. The device for synchronizing processes according to claim 1, wherein said system clock serves for determining at least one value of a machine including rotational speed, acceleration, and angular position of the machine.

3. The device for synchronizing processes according to claim 2, wherein said at least one determined value is feedable to the further units by a bus system.

4. The device for synchronizing processes according to claim 1, wherein said multiplication devices have a filtering device.

5. The device for synchronizing processes according to claim 1, wherein said multiplication devices have a device for recognizing an absolute time check.

6. The device for synchronizing processes according to claim 1, wherein said multiplication devices have a quartz-stabilized frequency generator.

7. The device for synchronizing processes according to claim 2, wherein said multiplication devices serve for producing a module clock for processes taking place in the other units.

8. The device for synthesizing processes according to claim 7, wherein said module clock is adjustable in accordance with the process taking place in the respective other units.

9. The device for synthesizing processes according to claim 3, wherein said bus system for distributing said system clock is a local bus system.

10. A method of synchronizing processes which run on a central unit and on other units, with a system clock that has been produced in the central unit and with module clocks that have been produced in the other units, which comprises providing the system clock, which has been produced in the central unit, for synchronizing the module clock which has been produced in the other units.

11. The method according to claim 10, which includes, at regular intervals, synchronizing the other units to an absolute time.

12. The method according to claim 10, which includes applying the module clock present in the units, which are involved, for processes taking place therein.

13. The method according to claim 10, which includes, upon failure of the system clock, driving down the processes led by the module clock, which are conducted through the further involved units.

14. The method according to claim 10, which includes adjusting the frequency of the module clock in accordance with an operation being performed thereat.

15. The method according to claim 10, which includes determining values of a machine, such as rotational speed, acceleration, and angular position simultaneously with the system clock.

16. The method according to claim 10, which includes forwarding the determined values together with the determined instant of time to the other units.

17. The method according to claim 10, which includes determining the values of the machine by a mathematical model in the involved units after the transmission via the central unit for the time-duration until the transmission of the next current values.

18. The method according to claim 10, which includes transmitting an absolute time from a central computer unit to involved computer units, after a defined number of subdivided system clocks.